OFFICE OF THE STATE COMPTROLLER
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Long Island Power Authority: Response to Hurricane Earl

December 2010

Executive Summary

In late August 2010, the east coast of the United States braced for the arrival of Hurricane Earl, the fifth named storm of the Atlantic hurricane season. By Monday, August 30, a Category 2 storm was projected to reach Long Island at the start of the Labor Day weekend. Over the course of the week, LIPA initiated storm preparation and response protocols. The resulting expenditures are estimated at more than $33 million, which exceeds the $27 million total storm costs budgeted by LIPA for the year. Ultimately, Hurricane Earl largely bypassed Long Island, causing relatively minimal damage. Due in part to severe winter storms, however, LIPA's overall storm costs are projected to exceed budgeted expenses by 640 percent, or $173 million, in 2010.

In September, Comptroller DiNapoli undertook a review of LIPA's preparation for the storm and the resulting expenses. In response to concerns raised by Senator Fuschillo, Assemblyman Alessi and others about the cost of storm preparedness, this office requested information from LIPA to assess its preparation for the storm, the criteria for determining the appropriate response, the effect on LIPA's budget, and any impact on ratepayers.

LIPA provided most of the information requested; however, final actual storm costs are not yet available. In addition, while LIPA used established procedures in determining its storm preparation and response, development of a corresponding cost-based analysis would provide a useful additional decision-making tool. Other improvements to existing decision-making strategies and budgeting methodologies may also be necessary to effectively balance storm preparedness with prudent spending.

Background

The Long Island Power Authority (LIPA) was established in 1986 by the enactment of the Long Island Power Authority Act to control increasing electricity costs within the service area of the Long Island Lighting Company (LILCO). LIPA acquired LILCO's electrical transmission and distribution system, as well as certain other assets, and became the primary supplier of electricity on Long Island in 1998. A new publicly-traded

utility corporation called KeySpan Corporation assumed operational responsibility for virtually all the plants, equipment and staff resources previously belonging to LILCO. In October 2007, National Grid LLC purchased KeySpan and legally assumed KeySpan's contracts with LIPA.

Most of LIPA's day-to-day operations are now performed by National Grid, a private utility, under three contractual agreements. LIPA supplies electricity to approximately 1.1 million customers on Long Island.

Storm Preparation Expenses

LIPA provided documentation of estimated storm costs in excess of $33 million. These costs represent approximately 1 percent of LIPA's total annual budgeted operating expenses. While this response details the projected costs over the 10-day period leading up to and immediately after the storm, the total actual costs incurred are not yet available.

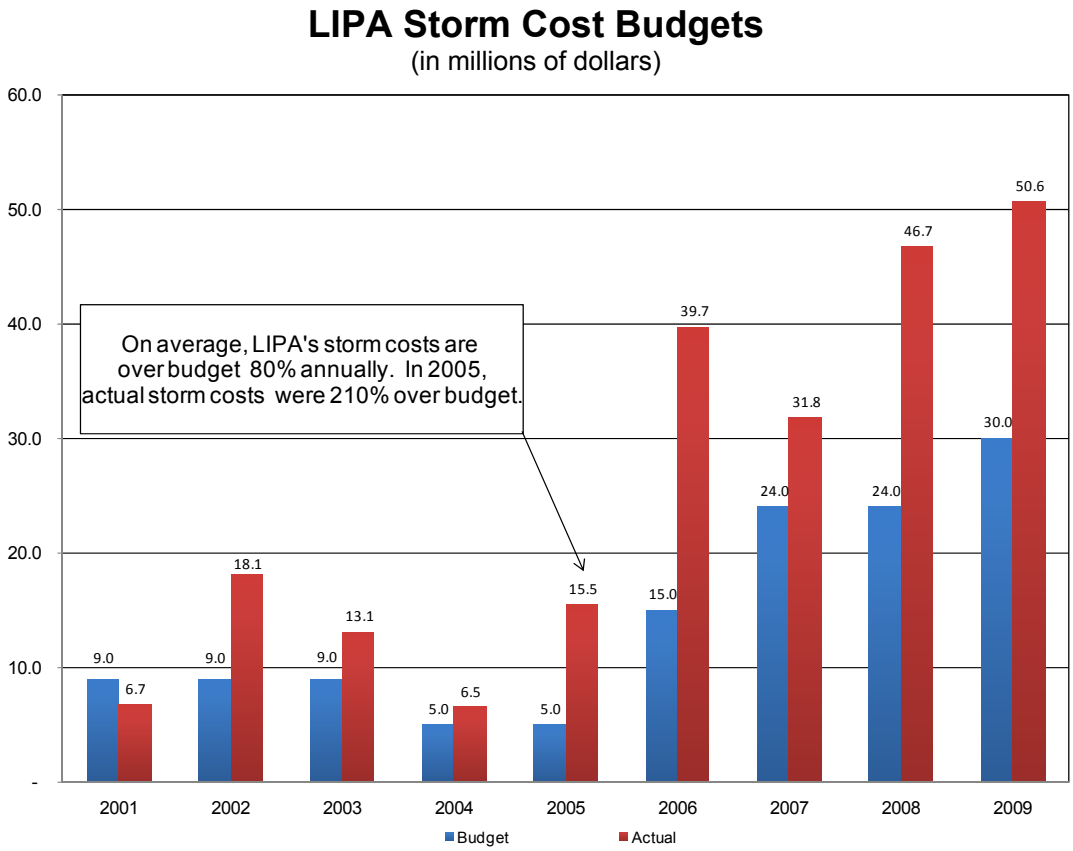
Much of the criticism of LIPA's response has focused on the deployment of off-island or foreign crews in anticipation of widespread outages. Foreign crews are typically contract crews that are pulled from neighboring regions and states or even Canada. According to LIPA's estimate, the cost for foreign crew labor could exceed $21.5 million, with an additional cost of $1.3 million to lodge the crews.[1]

Additional expenditures related to Hurricane Earl preparations include internal crew labor costs estimated at $4.2 million, tree trim crew costs estimated at $3.4 million, materials and tax costs estimated at $2.0 million, and base logistics costs estimated at $0.7 million.

According to LIPA, storm restoration costs included in the Authority's budgets are based on historical budget-to-actual costs. However, they also consider nonfinancial factors such as outage policies, storm response strategies, risk tolerance and maintenance programs. Since LIPA cannot predict the likelihood of weather events, these factors, in addition to the potential impact to ratepayers, are considered when LIPA calculates its storm cost budget.

A history of LIPA storm cost budgets indicates that in eight of the previous nine years, actual storm costs exceeded the budgeted amount, in some cases by as much as 200 percent. While many of these costs are driven by unpredictable weather-related events, this trend suggests a need to improve the methodology used in constructing storm-related budgets – particularly in light of this year's massive budget overrun of 640 percent.

[1] The cost incurred by LIPA for deploying foreign or off-island crews begins accruing the instant the crews leave their base and begin travelling to Long Island and continues to accrue until they return to their home base. The crews are paid at the same contract rate that is currently in effect for crews on Long Island regardless of their area of origin.



LIPA estimates that total 2010 storm restoration costs will exceed the Authority's approved budget by $172.9 million. Estimated Hurricane Earl preparations alone exceeded the Authority's budget by more than $6 million. In its budget for 2011, LIPA does not include anticipated recovery of overall 2010 storm restoration costs from federal and other sources, estimated at $54 million. The proposed 2011 budget includes storm restoration costs of $46 million. This is $19 million higher than the 2010 budget, but $153.9 million less than the estimated actual 2010 costs.

While the storm restoration costs budgeted for 2011 are higher than in previous years, LIPA has not included a rate increase in the Authority's 2011 budget. The proposed budget actually includes an overall rate decrease. Although the Authority anticipates an increase in the delivery charge and expenses related to the growth of LIPA's efficiency and renewable energy programs, these will be offset by a lower power supply charge. The effect of these rate changes will be a reduction in the average customer's monthly bill of approximately $3.31. However, LIPA has indicated that the power supply charge component of the budgeted rate will be re-evaluated quarterly based on more current market projections. Changes in the market could require adjustments to the rates during the year. It should also be noted that LIPA has included a new residential late payment charge in the revenue projections for the 2011 budget.

LIPA is currently receiving, reviewing and processing invoices for expenses related to Hurricane Earl. Actual costs are not yet available because of a review and negotiation process undertaken by National Grid and LIPA for all storm-related invoices. The

Comptroller recommends that LIPA provide a detailed accounting and justification of actual costs incurred once actual costs are known and finalized.

Determining the Level of Storm Response

In developing the strategies and policies that govern its storm preparation and restoration efforts LIPA indicated that it tracks and examines industry standards, best practices and post-event analyses produced by other utilities. The Authority participates in internal hurricane season preparedness drills and utilizes hurricane season storm forecasting prepared by nationally recognized organizations.

To determine its level of response for hurricanes and tropical storms, LIPA uses a tool known as the Staging Area Activation Decision Matrix (matrix). This matrix is dependent on the storm event's rating on the Saffir-Simpson Hurricane Scale, the probability of impact to the LIPA service area, and the number of hours before the projected arrival of tropical storm force winds. As part of this decision-making process, the Authority uses the National Weather Service and other commercially available weather services, and collaborates with State and local emergency management offices. In addition, LIPA considers restoration events in other parts of the country – such as damage caused by the storm in other locations or unrelated natural disasters occurring elsewhere – that may impact the availability of the needed resources, as well as the effect of potential Long Island evacuations.

The results of this decision matrix dictate the number of lineworkers needed for tree trimming and restoration efforts, and provide guidance on staging those workers. Utilities, including LIPA, belong to mutual aid groups which engage in a cooperative process during storm events to prioritize the use and release of crews. During a widespread event, like Hurricane Earl, utilities will typically hold their own resources until the storm passes, requiring each utility to engage contract crews outside of its own mutual aid area.

On Tuesday, August 31, LIPA made the decision to secure 1,600 off-island workers in anticipation of the arrival of Hurricane Earl. In addition, all LIPA crews were notified and put on alert, and several other internal LIPA emergency protocols were initiated.

LIPA's Post-Storm Analysis and Recommendations

In response to criticism of LIPA's management of the storm preparations, in September, LIPA's Board of Trustees assembled an *ad hoc* board committee to review and analyze the storm preparations and examine ways to improve existing policies and procedures. The board committee reviewed existing Authority policies and procedures, including storm anticipation procedures and mutual assistance agreements, particularly as they related to the deployment of off-island crews.

The committee looked at industry best practices, which recommend having crews available onsite prior to the storm event. Pre-deployment of crews increases costs, but is estimated to cut restoration time in half. The committee also examined the potential economic impact, as indicated by industry studies, of longer lasting power outages. The committee concluded that the existing policy of deploying crews before a storm strikes, which was developed in 2006, should be continued. The committee did, however, recognize that efforts should be made to "seek similar levels of preparedness at lower cost."

Most of the recommendations made to management, which were presented to the full LIPA Board of Trustees on October 28, 2010, centered on improving the process of securing off-island or foreign crews. The committee noted that LIPA has improved processing of off-island crews as they arrive in advance of an event, which saves time and resources.

However, the committee urged LIPA to work toward implementing strategies that would prevent committing to foreign crews too early, potentially saving millions of dollars in pre-storm staging costs. LIPA officials have indicated that they felt compelled to commit to off-island crews 12 to 24 hours earlier than their standards dictate because the widespread nature of the storm was causing most coastal utilities to scramble for the same resources. The committee recommended that LIPA leadership explore the possibility of developing an off-island crew resource sharing arrangement, similar to existing mutual aid agreements, to allow for a more collaborative prioritization in securing foreign crews. Also suggested was the possibility of establishing retainer or right-of-first-refusal contracts to reduce the pressure on LIPA to commit to off-island crews on a larger scale or earlier than necessary due to competition with other utilities.

Lastly, the committee proposed enhancing the matrix used to determine storm response levels to include guidance for tropical storms and Category 4 hurricanes. The committee recommended that expanding the matrix to provide guidance based on storm tracks in relation to LIPA service areas may also be beneficial.

Conclusion

While LIPA appears to have adhered to established storm protocols in response to Hurricane Earl, there are opportunities to improve these policies and procedures. LIPA needs to ensure balance between the need for a rapid and aggressive storm response and the need to contain costs ultimately borne by ratepayers.

Improvements to the methodologies used to establish storm cost budgets to provide more reasonable estimates of potential storm-related costs may be necessary. In addition, final actual costs of Hurricane Earl should be fully disclosed and clearly itemized, increasing transparency and assisting in future planning for storms.